

Sheet 1 of 2

37 CFR 1.501
INFORMATION DISCLOSURE CITATION

IN A PATENT

(Use several sheets if necessary)

Docket Number (Optional)

08/506,032

Patent Number

Applicant

Donald K. Forest

Issue Date

Group Art Unit

2609

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILE NO DATE IF APPROPRIATE
<i>P.L.</i>	4 3 1 0 8 3 9	12 Jan 1982	Schwerdt			
	4 5 8 7 5 2 0	06 May 1986	Astle			
	5 2 6 6 9 3 1	30 Nov 1993	Tanaka			
	5 3 0 0 9 4 3	05 Apr 1994	Jakobs et. al.			
	4 1 8 1 8 1 3	01 Jan 1980	Marley			
	4 3 3 6 4 2 1	22 Jun 1982	Welch et. al.			
	5 2 5 7 3 1 4	26 Oct 1993	Kimura			
	5 3 2 9 6 0 9	12 Jul 1994	Sanada et. al.			
	5 4 4 0 8 5 8 2 2	18 Apr 1995	Collier			
	5 4 2 8 7 0 7	27 Jun 1995	Gould et. al.			
<i>P.L.</i>	5 4 5 4 0 6 2	26 Sep 1995	LaRue			

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		See attached sheet.

EXAMINER

Regina L. ...

DATE CONSIDERED

5/13/98

Burden Hour Statement: This form is estimated to take 2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

In re Application of:

Donald K. Forest

Serial No.: 08/506,032

Filed: 24 July 1996

Title: DATA ENTRY METHOD
AND APPARATUS



Group Art Unit:

2609

Examiner:

Regina Liang

Applicant Document Number:

032-12

Form PTO-1449 Sheet 2 of 2

R.L.
Japanese Patent Abstract No. JP 07-295,784, filed 25 April 1994, published 10 November 1995,
abstract in English, submitted by Andou Haru et. al., Applicant Hitachi.

Japanese Patent Abstract No. JP 06-149,338, filed 16 November 1992, published 27 May 1994,
abstract in English, submitted by Satake Toshifumi et. al.

Fitts, P.M., "The information capacity of the human motor system in controlling the amplitude of
movement", Journal of Experimental Psychology, 1954, vol. 47, pp. 381-391.

Fitts, P.M and Peterson, J.R., "Information capacity of discrete motor responses", Journal of
Experimental Psychology, 1964, vol. 67, pp. 103-112.

Pointer Systems '92/'93 Catalog, Pointer Systems, Inc., Burlington, VT: Pointer Systems, Inc., 1992.

R.L.
PCT International Application No. PCT/US93/07233, published 17 February 1994, submitted by
McClish et. al.

Regina Liang


5/13/98.

Sheet 1 of 1

[illegible]

Burden Hour Statement: This form is estimated to take 2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Sheet 1 of 1

 <p>37 CFR 1.501 INFORMATION DISCLOSURE CITATION IN A PATENT</p> <p><i>(Use several sheets if necessary)</i></p>	Doclet Number (Optional) 032-18	Patent Number 08/506,032
	Applicant Donald K. Forest	
	Issue Date	Group Art Unit 2609

U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	DATE CONSIDERED	
<i>Dennis J. Smith</i>	<i>5/13/98</i>	

Burden Hour Statement: This form is estimated to take 2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Sheet 1 of 5

(Use several sheets if necessary)

032-19

08/506,032

Donald K. Forest

Group Art Unit

2609

[illegible]

DOCUMENT NUMBER										DATE	COUNTRY	CLASS	SUBCLASS	Translation		
														YES	NO	
											See attached sheets.					

		See attached sheets.

DATE CONSIDERED

Burden Hour Statement: This form is estimated to take 2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

In re Application of:

Donald K. Forest

Serial No.: 08/506,032

Filed: 24 July 1995

Title: DATA ENTRY METHOD
AND APPARATUS



Group Art Unit:

2609

Examiner:

Regina Liang

Applicant Document Number:

032-19

Form PTO/SB/42, Sheet 2 of 5

U.S. Patent Documents

Q. U.S. Patent No. 5,396,264 filed 3 January 1994, issued 7 March 1995 to Falcone et al.

U.S. Patent No. 5,387,896 filed 6 August 1990, issued 7 February 1995 to Allapat et al.

U.S. Patent No. 5,289,168 filed 23 January 1991, issued 22 February 1994 to Freeman.

U.S. Patent No. 5,254,983 filed 5 February 1991, issued 19 October 1993 to Long et. al.

U.S. Patent No. 5,233,662 filed 5 November 1991, issued 3 August 1993 to Christensen.

U.S. Patent No. 5,220,361 filed 5 June 1991, issued 15 June, 1993 to Lehmer et. al.

U.S. Patent No. 5,195,179 filed 21 May 1990, issued 16 March 1993 to Tokunaga.

U.S. Patent No. 5,175,688 filed 27 November 1989, issued 29 December 1992 to Sasaki et. al.

U.S. Patent No. 5,146,210 filed 26 July 1990, issued September 1992 to Heberle.

U.S. Patent No. 5,027,109 filed 8 June 1989, issued 25 June 1991 to Donovan et. al.

R. U.S. Patent No. 5,012,231 filed 20 December 1988, issued 30 April 1991 to Felsenstein.

In re Application of:

Donald K. Forest
Serial No.: 08/506,032
Filed: 24 July 1995
Title: DATA ENTRY METHOD
AND APPARATUS

Group Art Unit:

2609

Examiner:

Regina Liang

Applicant Document Number:

032-19

Form PTO/SB/42, Sheet 3 of 5

R.- U.S. Patent No. 4,987,411 filed 1 July 1988, issued 22 January 1991 to Ishigami.

U.S. Patent No. 4,979,094 filed 4 April 1988, issued 18 December 1990 to Gemmell et. al.

U.S. Patent No. 4,751,503 filed 24 December 1984, issued 14 June 1988 to Kermisch.

U.S. Patent No. 4,748,502 filed 18 August 1986, issued 31 May 1988 to Friedman et. al.

U.S. Patent No. 4,665,402 filed 6 May 1983, issued 12 May 1987 to Young.

U.S. Patent No. 4,648,028 filed 31 August 1984, issued 3 March 1987 to DeKlotz et. al.

U.S. Patent No. 4,638,312 filed 25 October 1985, issued 20 January 1987 to Quinn et. al.

U.S. Patent No. 4,559,598 filed 22 February 1983, issued 17 December 1985 to Goldwasser et. al.

U.S. Patent No. 4,386,346 filed 27 March 1981, issued 31 May 1983 to Levine.

U.S. Patent No. 4,354,185 filed 24 September 1980, issued 12 October 1982 to Worborschil.

U.S. Patent No. 4,354,184 filed 24 September 1980, issued 12 October 1982 to Worborschil.

R.- U.S. Patent No. 4,345,313 filed 2 April 1980, issued 17 August 1982 to Knox.

In re Application of:

Donald K. Forest

Serial No.: 08/506,032

Filed: 24 July 1995

Title: DATA ENTRY METHOD
AND APPARATUS

Group Art Unit:

2609

Examiner:

Regina Liang

Applicant Document Number:

032-19

Form PTO/SB/42, Sheet 4 of 5

U.S. Patent No. 3,541,521 filed 11 December 1967, issued 17 November 1970 to Koster.

Foreign Patent Documents

Japanese Patent Abstract No. JP 54-19618, filed 15 July 1977, published 14 February 1979, abstract in English, submitted by Masahiro Iwamura, Applicant Hitachi.

Japanese Patent Abstract No. JP 61-121185, filed 19 November 1984, published 9 June 1986, abstract in English, submitted by Yamakawa Tadashi, Applicant Canon.

Other Documents

CTI Electronics Corporation, "Model M80XX Industrial Mouse" product flyer, Stratford, CT: CTI Electronics Corporation.

CTI Electronics Corporation, "Joysticks, Touchscreens, & Trackballs", product flyer, Stratford, CT: CTI Electronics Corporation.

Don Johnston Developmental Equipment, Inc., "CO:WRITER" product brochure, Wauconda, IL: Don Johnston Developmental Equipment, Inc.

LC Technologies, Inc. "The Eyegaze System" product brochure, Fairfax, VA: LC Technologies, Inc.

In re Application of:

Donald K. Forest

Serial No.: 08/506,032

Filed: 24 July 1995

Title: DATA ENTRY METHOD
AND APPARATUS

Group Art Unit:

2609

Examiner:

Regina Liang

Applicant Document Number:

032-19

Form PTO/SB/42, Sheet 5 of 5

R. ✓
Origin Instruments Corporation, "HeadMouse Manual", Grand Prairie, TX: Origin Instruments Corporation.

Prentke Romich Company, "Operator's Manual for Remote HeadMaster Mouse Emulator", Wooster, OH: Prentke Romich Company.

Quartet Technologies, Inc., "Switch Activated Environmental Control Units, Simplicity Series 7 and Series 7M" product flyer, Chelmsford, MA: Quartet Technology, Inc.

Quartet Technologies, Inc., "Voice and Switch Activated All-In-One Environmental Control Unit" product flyer, Chelmsford, MA: Quartet Technology, Inc.

Quartet Technologies, Inc., "Voice Activated Environmental Control Units, Simplicity Series 5,6, & 6 Plus!" product flyer, Chelmsford, MA: Quartet Technology, Inc.

Quartet Technologies, Inc., "Mouse/Keyboard Controller", product flyer, Chelmsford, MA: Quartet Technology, Inc.

Sentient Systems Technology, Inc., "DynaVox" product brochure, Pittsburgh, PA: Sentient Systems Technology, Inc.

R. ✓
Sentient Systems Technology, Inc., "DigiVox" product brochure, Pittsburgh, PA: Sentient Systems Technology, Inc.

Approved for Release through DTIC/STO, ONR, and USIA
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

[illegible][illegible]

Examiner Signature	<i>Kenia L. ...</i>	Date Considered	5/13/88
--------------------	---------------------	-----------------	---------

Examiner Signature	<i>Rexha L. Jones</i>	Considered	<input checked="" type="checkbox"/>
--------------------	-----------------------	------------	-------------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 608. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Enter Office that issued the document, by the two-letter code of the year of the reign of the Emperor must precede the serial number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code of the year of the reign of the Emperor must precede the serial number. 4 Enter Standard ST.16. If

EXAMINER: Initial if reference considered, whether or not citation is in conformity with the requirements of the Manual of Patent Examining Procedure. Include copy of this form with next communication to applicant.

1 Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16, if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

Estimated time to take: 2 hours to complete. Time will vary depending upon the needs of the individual case. Any questions should be directed to the Patent Classification Officer, Patent and Trademark Office, Washington, DC 20231.

code (WIPO Standard S.1.2). 4. Kind of document by the appropriate symbol from the list below. 5. Kind of document by the appropriate symbol from the list below. 6. Applicant is to place a check mark here if English language Translation is attached. 7. Burden Hour Statement: This form is estimated to take 2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. 8. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

In re Application of:

Serial No.: Donald K. Forest
08/506,032

Filed: 24 July 1995

Title: DATA ENTRY METHOD
AND APPARATUS



Group Art Unit:

2609

Examiner:

Regina Liang

Applicant Document Number:

032-20

Form PTO 1449

Other Documents

Examiner's

Initials

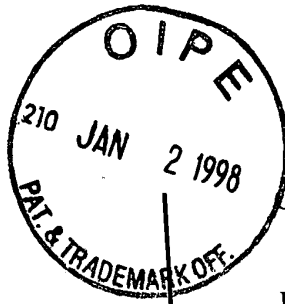
Downing, Andrew; Martin, Byron; Stern, Loon, "Methods for Measuring the Characteristics of Movements of Motor-Impaired Children", *Assistive Technology*, vol 2, pp.131-141, RESNA Press, Washington, DC, 1990.

Hamann, Gil, "Two Switchless Selection Techniques Using a Headpointing Device for Graphical User Interfaces" in *Proceedings of the 13th Annual RESNA Conference*, pp. 439-440, RESNA Press, Washington, DC, 1990.

Lin, Mei Li; Radwin, Robert G.; Vanderheiden, Gregg C., "Gain Effects on Performance Using a Head-Controlled Computer Input Device", *Ergonomics*, vol. 35, no. 2, pp.159-175, 1992.

Mayer-Johnson Company, "Non-Speech Communication Products 1992" catalog, Mayer-Johnson Company, Solana, Beach, CA.

Perricos, Costi; Jackson, Robin D., "A Head Gesture Recognition System for Computer Access" in *Proceedings of the RESNA '94 Annual Conference*, RESNA Press, Washington, DC, pp. 92-94, 1994.



In re Application of:

Donald K. Forest

Serial No.: 08/506,032

Filed: 24 July 1995

Title: DATA ENTRY METHOD
AND APPARATUS

Group Art Unit:

2609

Examiner:

Regina Liang

Applicant Document Number:

032-20

Form PTO 1449

R-
Prentke Romich Company, "1994-1995 Catalog", Prentke Romich Company, Wooster, OH.

Prentke Romich Company, "AlphaTalker™" product brochure, Prentke Romich Company, Wooster, OH.

Prentke Romich Company, "DeltaTalker™" product brochure, Prentke Romich Company, Wooster, OH.

Prentke Romich Company, "Liberator™" reference manual, version 1.03, Prentke Romich Company, Wooster, OH, 1992.

Treviranus, Jutta, "Quartering, Halving, Gesturing: Computer Access Using Imprecise Pointing" in *Proceedings of the RESNA International Conference '92*, RESNA Press, Washington, DC, pp. 374-376, 1992.

R-
Vanderheiden, Gregg C.; Kelso, D.P., "Comparative Analysis of Fixed-Vocabulary Communication Techniques", Trace Center, University of Wisconsin, Madison, WI, 1987.